

SD11
A4595

TIMBER RESOURCE REVIEW

Commentary Guide

for

Color Slides or Charts

FOREST SERVICE

U. S. DEPARTMENT OF AGRICULTURE

June 1956

National ES Library
USDA Forest Service

NOV 20 2013

240 W Prospect Rd
Fort Collins CO 80526

COMMENTARY GUIDE FOR COLOR SLIDES AND CHARTS
TIMBER RESOURCE REVIEW
FOREST SERVICE
U.S. DEPARTMENT OF AGRICULTURE

(Based on Chapter I - Timber Resources for America's Future, A Summary of the Timber Resource Review, Preliminary Review Draft. Timber Resource Review, Forest Service, U.S.D.A., 1955.)

The Timber Resource Review is the most recent study of the national timber situation as carried on by the Forest Service, U. S. Department of Agriculture, in collaboration with State forestry departments and the forest industries. It concerns only the timber resource of our forest lands. It makes no appraisal of the many other values of those lands.

The Timber Resource Review reports on our current timber situation and takes a look at future timber needs and supplies. It is the basis for future action to make certain that our forest lands will supply those needs.

(See pages 1-8)

A suggested sequence when all T.R.R. color charts are used together is as follows:

- 2,3,4,5 - Basic economic factors.
- 6,7,8,9,10,11,12,13,14,19,16,17,1,20,15,18 - Resource condition.
- 21,22,23,24,25 - Factors affecting growth.
- 26 - Needed and projected sawtimber growth 1975 and the year 2000.

Local Notes:

POPULATION & GROSS NATIONAL PRODUCT

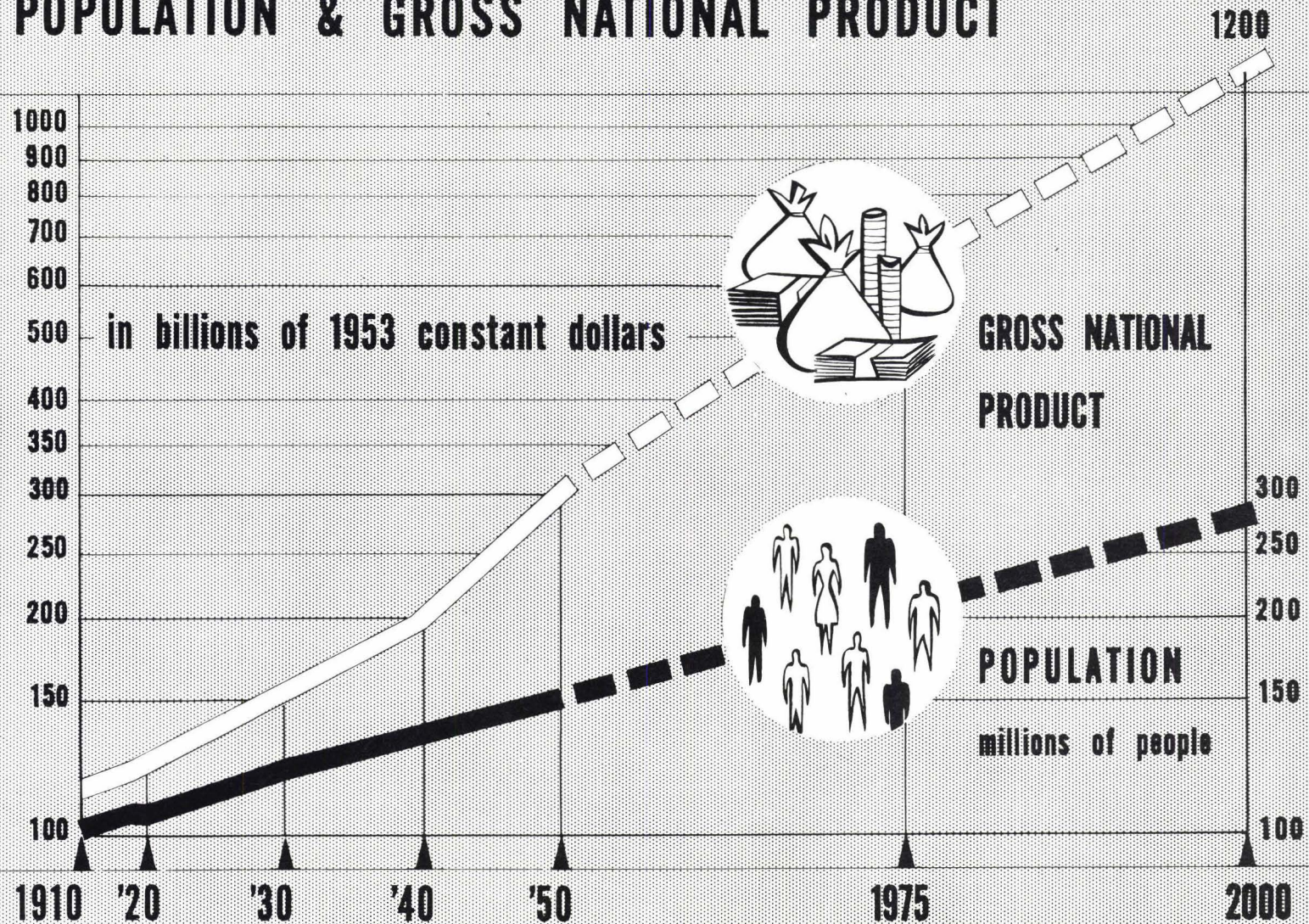


Chart T.R.R. - 2. Population and Gross National Product

Timber products consumption is directly related to the national economy -- the population and the goods and services which that population produces.

For the first half of this century, both the population and the gross national product -- those goods and services -- have been steadily and rapidly increasing. However, there has been a distinct divergence between the two -- goods and services (the top line) have increased at a greater rate than has population (the bottom line). As a result our standard of living has improved. If the two lines should change direction and come closer together, the standard of living would deteriorate for the simple reason that there would be less "goods and services" per person.

In 1950, the United States had 150 million people and a "gross national product" (goods and services) of 300 billion dollars. Bureau of the Census median estimates of 1952 contemplate 215 million people by 1975 and we can expect about 600 billion dollars of gross national product in that year. (It's more than 400 billion dollars right now.)

By the year 2000, it is believed that more than 275 million Americans will produce 1200 billion dollars in gross national product.

The economy -- now and in the future -- looks good. What does the timber situation look like?

(See pages 9-32 and T.R.R. Fact Sheet No. 4)

Local Notes:

BASIC RAW MATERIALS

PHYSICAL STRUCTURE RAW MATERIALS

FOOD

ENERGY MATERIALS

a. b. c.

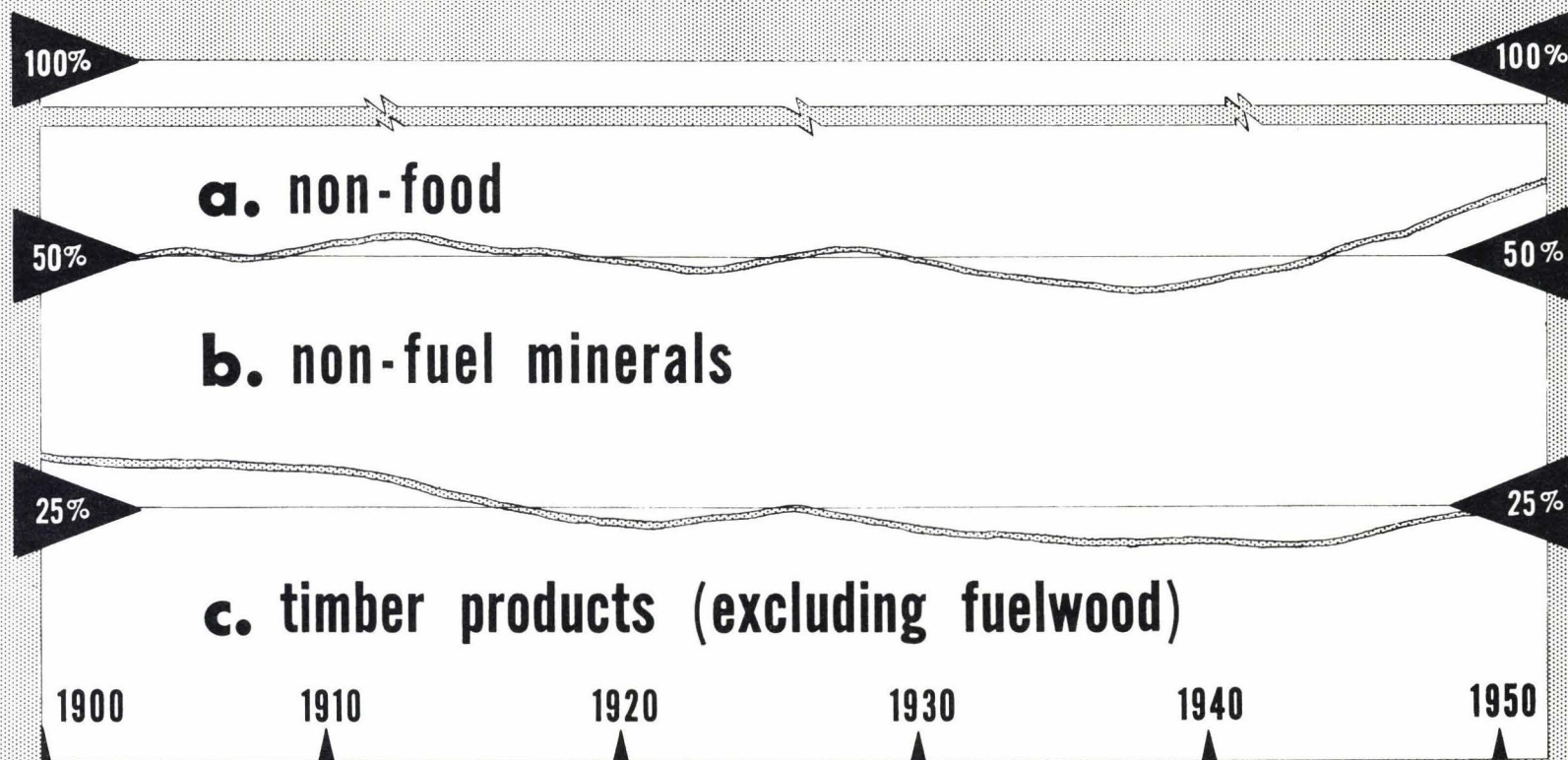


Chart TRR - 3. Basic Raw Materials

There are three kinds of basic raw materials -- food, energy materials, and "physical structure raw materials" (small chart, upper right). Except for fuelwood, which is classed as an energy material, timber products are part of those "physical structure raw materials." But don't let that mouthful of words confuse you -- it simply means the stuff from which things are made -- wood, cotton, wool, concrete, steel, minerals, and other raw materials.

Take a good look at this chart. It is a history of how consumption of industrial wood (all wood except fuel) compares with consumption of other raw materials used in manufacture and building. In 1900 industrial wood made up about 30 percent of all such raw materials. By the mid 1930's this proportion had dropped to a low point of around 16 percent. It remained at this level for a decade or more. Then during the past decade the proportion increased, reaching 19 percent in 1952. Thus the long time trend in the use of industrial wood relative to the use of other raw materials shows a decline, a period of stabilization, and a recent increase. Better technology, and growing use of the newer products are mainly responsible.

(See pages 9-32 and T.R.R. Fact Sheets No. 4 and 9)

Local Notes:

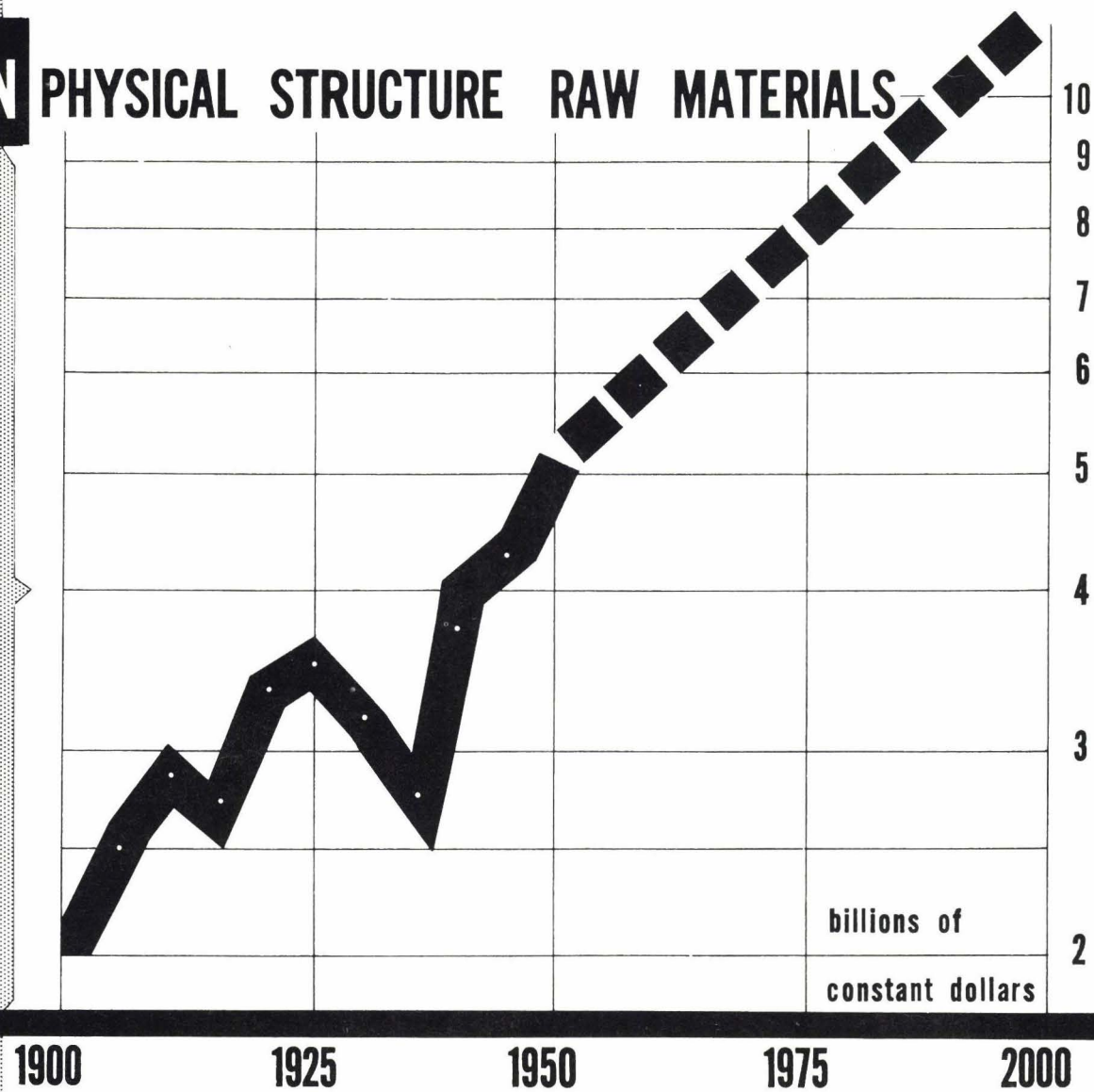
CONSUMPTION

PHYSICAL STRUCTURE RAW MATERIALS

a

b

c



billions of
constant dollars

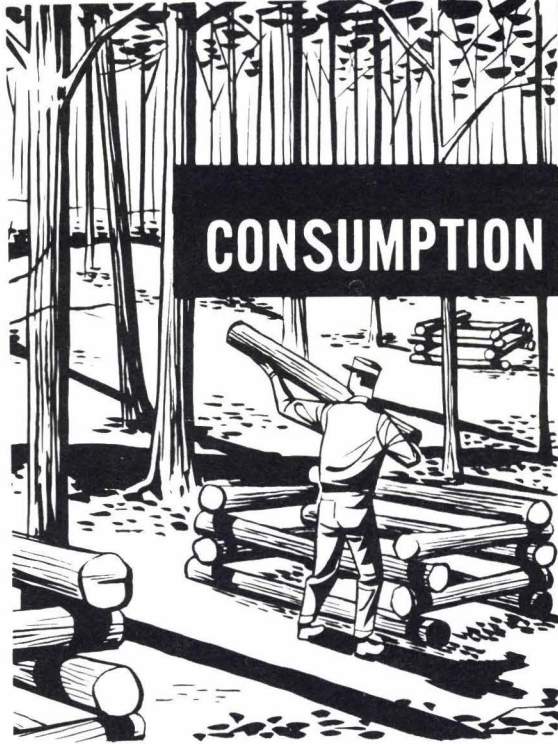
Chart TRR - 4, Consumption Physical Structure Raw Materials

The use of "physical structure raw materials" has increased at a consistent rate ever since 1900. Sure, two depressions show sharp drops in the curve. However, starting in 1900, there is a consistent increase through 1925 and up to 1950. Estimates based on future gross national product (Chart No. 2), indicate that the rate will continue.

Why is there no allowance for depression between 1950 and the year 2000? Well, simply because it is not the place of Government to predict depressions unless there are danger signs showing. None has been indicated by responsible agencies or industries.

(See pages 9-32 and T.R.R. Fact Sheets No. 4 and 9)

Local Notes:



CONSUMPTION

OF INDUSTRIAL WOOD

billions of CU. FT.



Chart TRR - 5. Consumption of Industrial Wood

This chart presents the historic trend of actual consumption of industrial wood to 1952 and projections of two levels of future demand. To adequately interpret the historic portion we should refer again to Chart 3 showing the proportion of all physical structure raw material represented by industrial wood. (Display both Charts 3 and 5.) Chart 5 shows a decline in total consumption of industrial wood from 1900 to about 1935. Now from Chart 3 note that during this same period wood was losing ground to other materials. In other words, relative consumption was dropping. Coming back to Chart 5, consumption rose sharply after the mid 1930's. This rise started at a time when relative consumption (Chart 3) stabilized and later began a slow increase. Thus during the mid 1930's there appears a reversal in the previous downward trend of consumption of industrial wood.

Factors responsible for this reversal include changes in technology which enabled wood to better meet competition of other materials. Examples are the expanded use of preservatives, and the development and use of improved engineering principles. Other important factors were the rapidly expanding consumption of such products as pulp and paper and veneer and plywood for which there has been a rapidly increasing per capita use. Our fast growing population and expanded economic activity were also ~~major factors~~ in reversing this trend.

Projections of future demands anticipate continuation of the recent increased consumption trend but at a lower rate of annual increase.

Between 1950 and the year 2000, there are two estimates of consumption of industrial wood. The upper line presupposes that industrial wood will maintain its 1952 position among physical structure raw materials. It also assumes that the price of timber products will increase no faster than prices of competing materials. Increasing per capita consumption is also a feature of this upper estimate. Thus by the year 2000 (less than 45 years away) this estimate assumes a use of 22 billion cubic feet of industrial wood, about 80 percent more than in 1952.

The upper estimate is poorly named since it does not indicate the true upper possibilities of future demand that might occur. If another estimate were made on the assumptions that the upper projections of population and economic activity were reached rather than the median projections actually used, then projected demands would be higher still.

The lower line^{products} presents a more conservative picture and presupposes that timber^{prices} will increase considerably faster than those for competing materials. Other features of this lower estimate are a

(Over)

decrease in the proportion of physical structure raw materials occupied by industrial wood and a continued decline in per capita consumption. Under those conditions, annual use of industrial wood would be about 18 billion cubic feet by the year 2000 or 48 percent more than in 1952. This is a considerably less optimistic outlook for our timber economy.

This chart completes the discussion of the economic factors to which our current and future timber situation are related.

(See pages 9-32 and T.R.R. Fact Sheets 4 and 9)

Local Notes:

USE OF OUR LAND

U.S. & COASTAL ALASKA

1. FOREST LAND	34%
COMMERCIAL	25%
NON-COMMERCIAL	9%
2. CROPLAND	21%
3. PASTURE-RANGE	36%
4. OTHER	9%

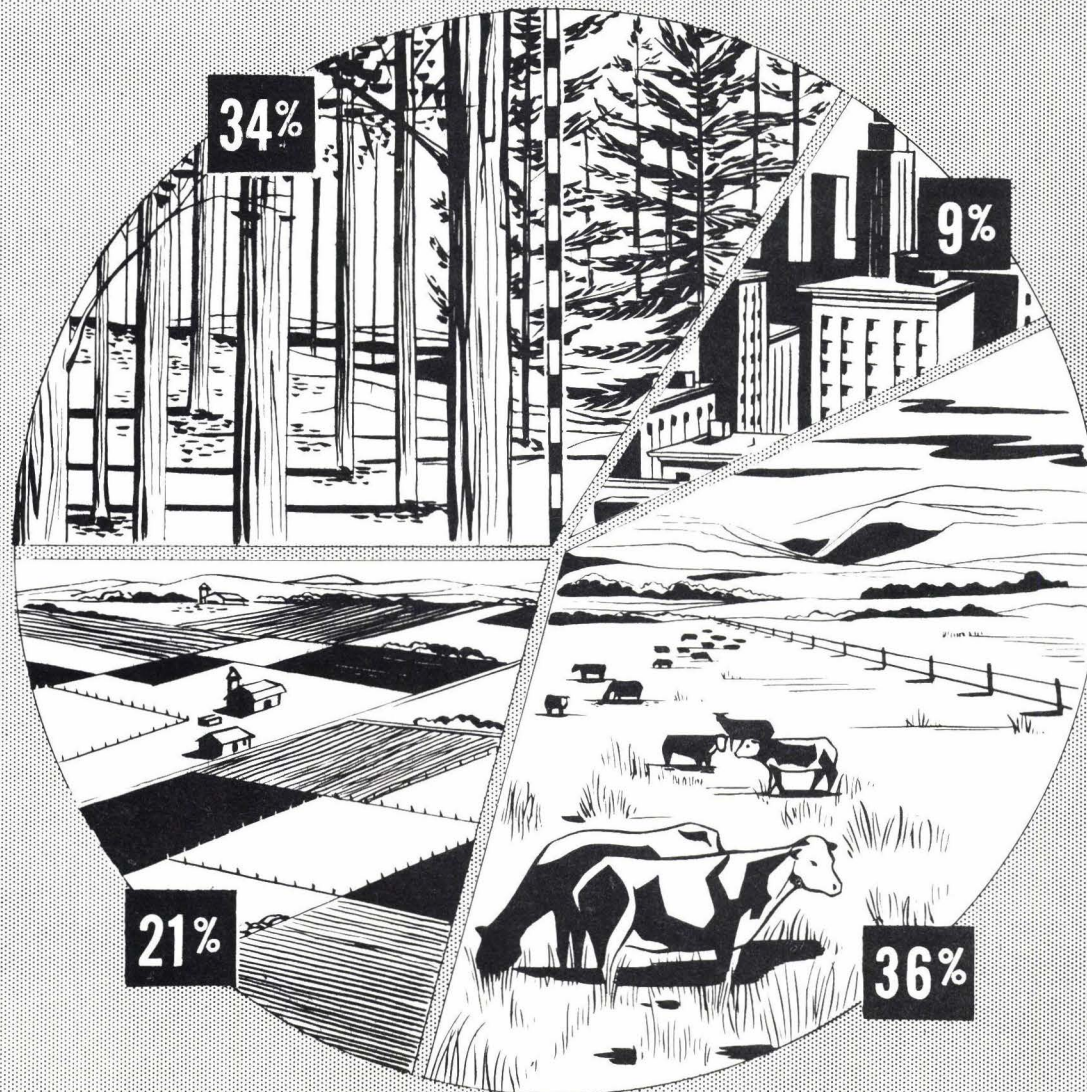


Chart TRR - 6, Use of Our Land, U.S. and Coastal Alaska

Forest land -- both commercial and noncommercial -- amounts to 664 million acres, one-third of the total land area of the United States. One-fourth of the total land area is commercial forest land, the land to which the United States looks for its timber supplies. There are 489 million acres of commercial forest land in the United States and Coastal Alaska. Nine percent -- 164 million acres -- of the land area is noncommercial forest land -- land which is not suitable or not available for growing commercial timber crops. However, much of it is valuable for watersheds, livestock grazing, wildlife, and recreational use.

The total area of commercial forest land probably will not change much in the next 50 years. Some will go into other uses while some will come back into forests from present farm lands.

Take a good look at that 9 percent of our land area occupied by cities, reservoirs, highways, railroads, etc. That will no doubt increase considerably as populations increase. The additional land going into such uses will be taken out of land now used for other purposes.

(See pages 33 and 34 and T.R.R. Fact Sheet No. 5)

Local Notes:

DISTRIBUTION OF COMMERCIAL FOREST LAND

WEST

25%

EAST

75%

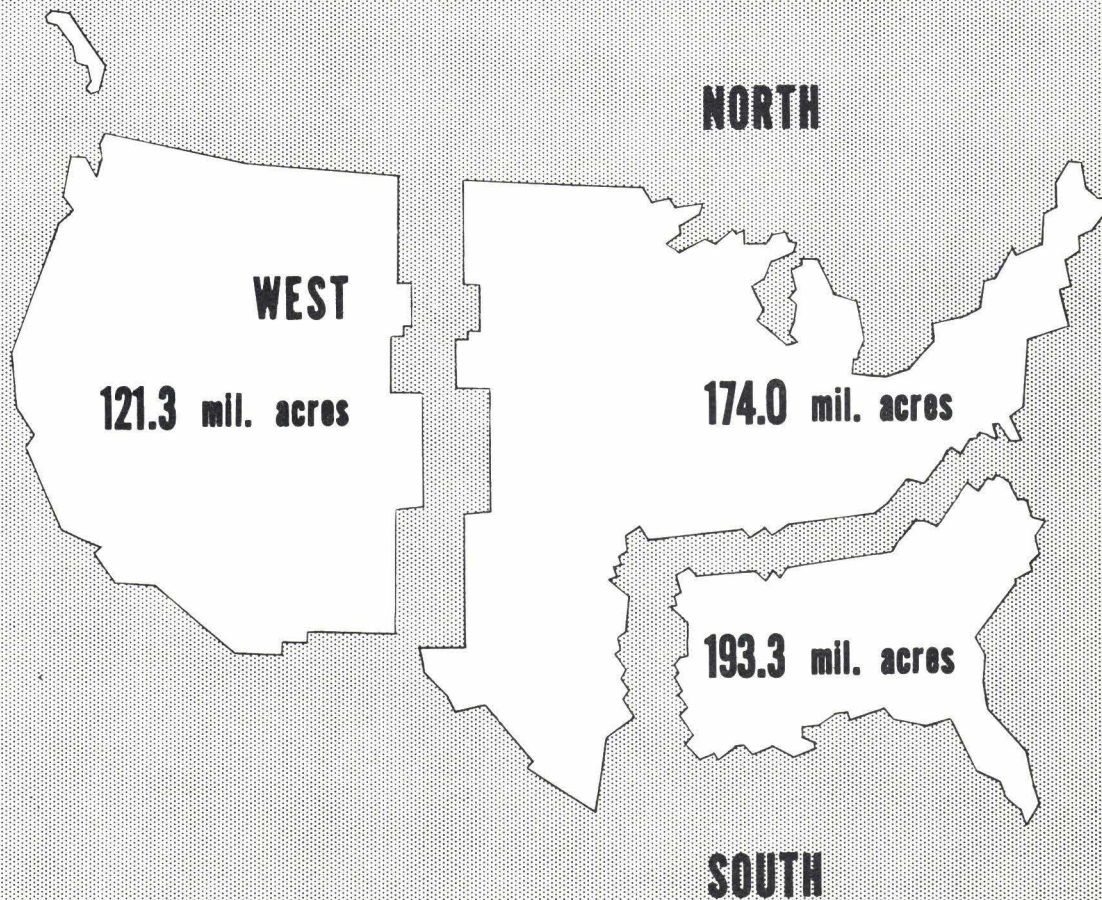


Chart TRR - 7. Distribution of Commercial Forest Land

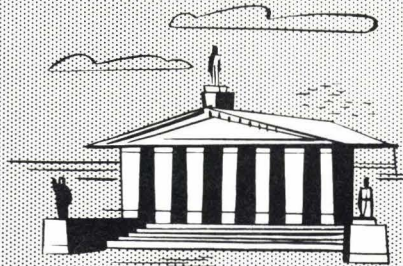
Not many people realize that most -- in fact, three-quarters -- of our commercial forest land lies in the East. This chart shows the breakdown. Note that the South has the most with the North a close second. Where most of our forest land is located is where we will eventually grow most of our timber.

Why is West Texas included in the North? It is a part of the Plains area, all of which contains only six million acres of commercial forest land and most of which is really in the North.

(See pages 34-35 and T.R.R. Fact Sheet No. 5)

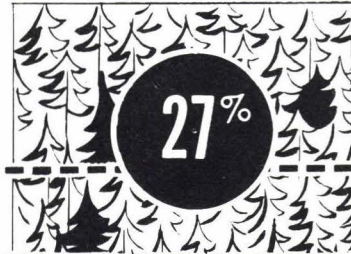
Local Notes:

OWNERSHIP COMMERCIAL FOREST LAND



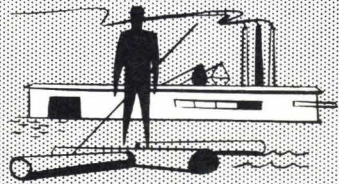
FEDERAL . . . 21%

STATE-LOCAL . . 6%



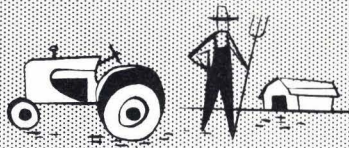
103.1 MIL. ACRES

27.2 MIL. ACRES



FOREST INDUSTRIES . . 13%

FARM 34%



62.4 MIL. ACRES

165.2 MIL. ACRES



OTHER 26%



130.7 MIL. ACRES

Chart TRR - 8. Ownership Commercial Forest Land

The condition and use of forest land and timber depends largely upon the people who own private timberlands and the agencies that administer public lands.

Most forest land in the United States is privately owned with more than one-half of all commercial forest land in small private holdings, on farms and in other ownerships. Forest industries own 13 percent of the commercial forest land. Altogether private ownership accounts for 73 percent -- almost three-quarters -- of the forest land. The remainder, 27 percent, is in public ownership.

(See pages 36-40 and T.R.R. Fact Sheet No. 6)

Local Notes:

OWNERSHIP

PRIVATE COMMERCIAL FOREST LAND

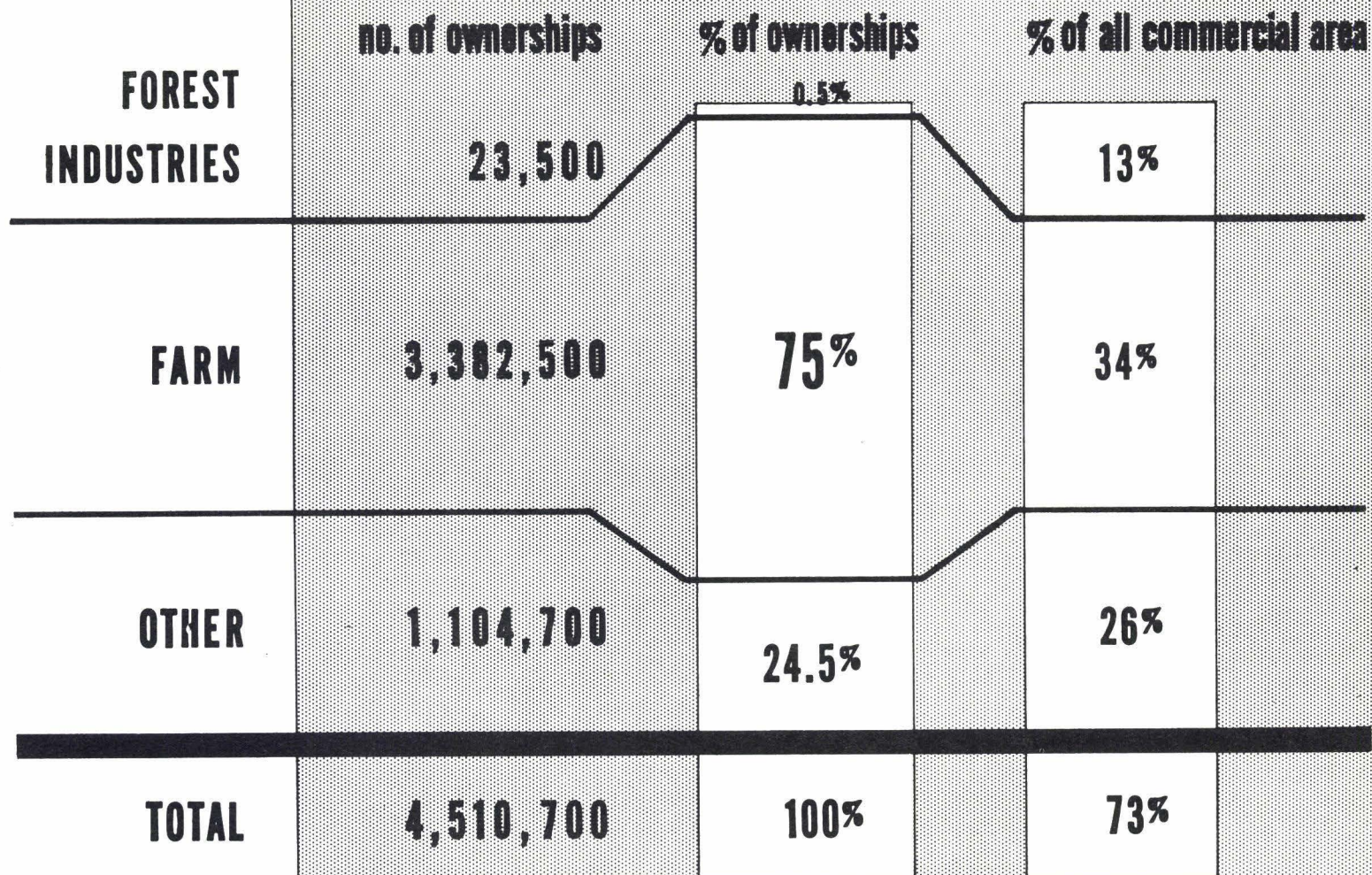


Chart TRR - 9. Ownership - Private Commercial Forest Land

Here's a breakdown showing how our private forest land is owned. There are over four and one-half million holdings. (No one knows how many people own these tracts.) If we take away the 23,500 forest industry ownerships and the larger ownerships other than the forest industries, there are still almost four and one-half million small ownerships.

Timberlands on farms account for three-quarters of all private ownerships.

(See pages 36-42 and T.R.R. Fact Sheets No. 6 and 7)

Local Notes:

OWNERSHIP

PRIVATE COMMERCIAL FOREST LAND

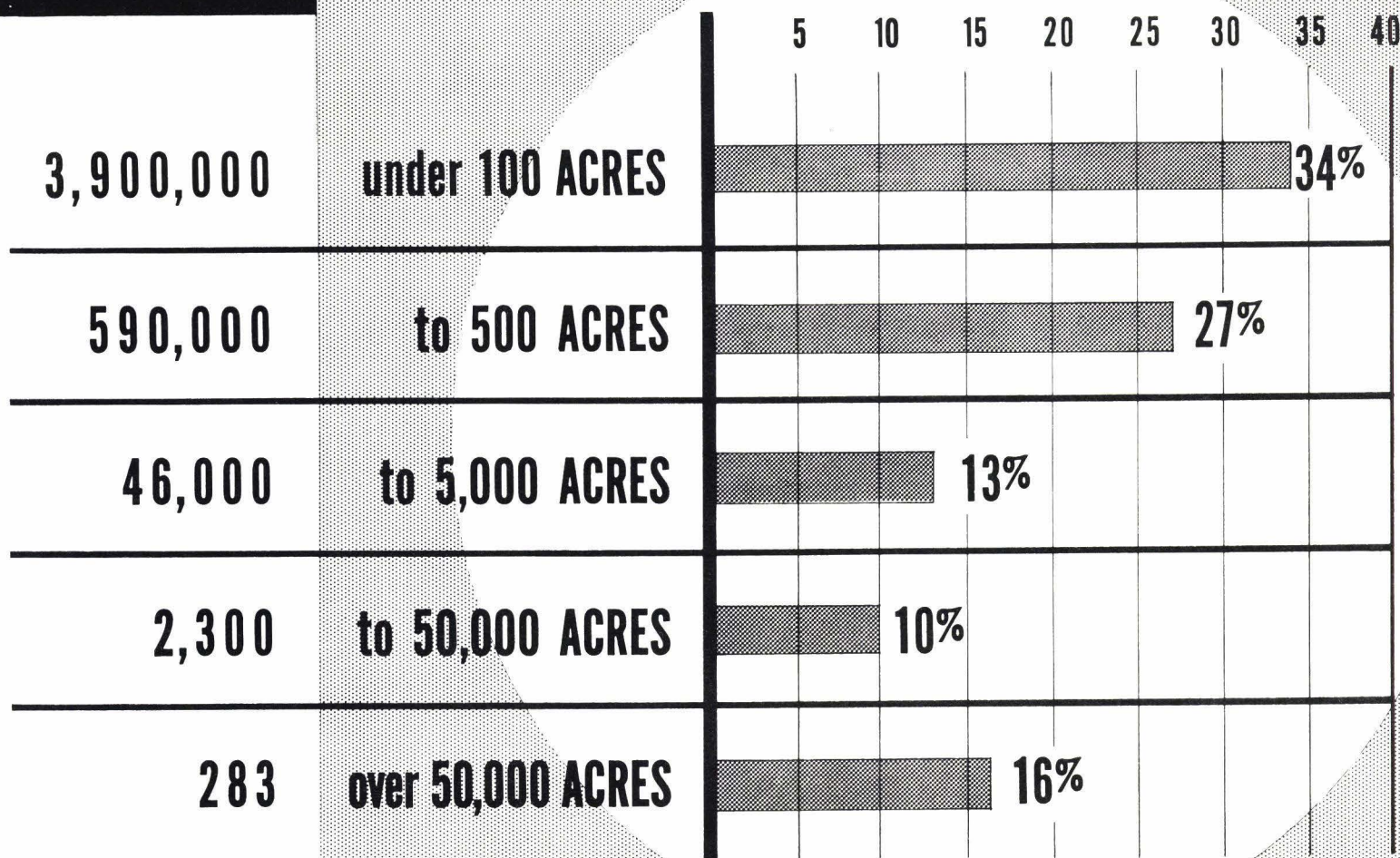


Chart TRR - 10. Ownership - Private Commercial Forest Land

Sixty-one percent of privately-owned commercial forest land is in almost four and one-half million different ownerships of less than 500 acres each. There are less than 50,000 ownerships over 500 acres in size.

(See pages 36-42 and T.R.R. Fact Sheets No. 6 and 7)

Local Notes:

SAWTIMBER VOLUME — 2,057 billion board feet

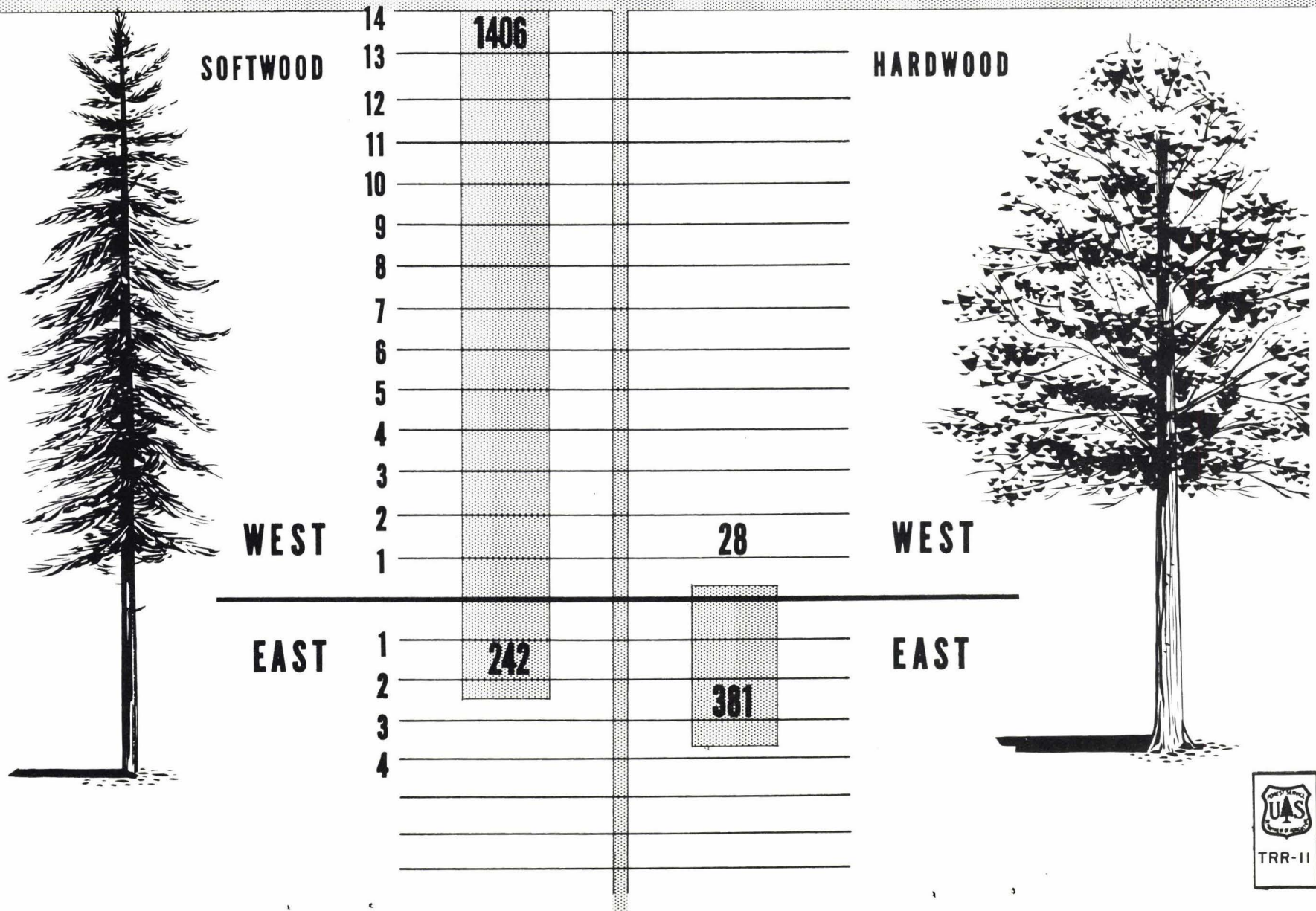


Chart TRR - 11. Sawtimber Volume - 2.057 Billion Board Feet

What kind of sawtimber do we have? Fortunately, mostly softwoods because that is the kind Americans cut and use most. Because of old-growth stands, most of the softwood sawtimber is in the West. The reverse is true of hardwoods -- most of them are in the East.

(See pages 42-48 and T.R.R. Fact Sheets No. 1 and 3)

Local Notes:

SAWTIMBER VOLUME

WEST

70%

EAST

30%

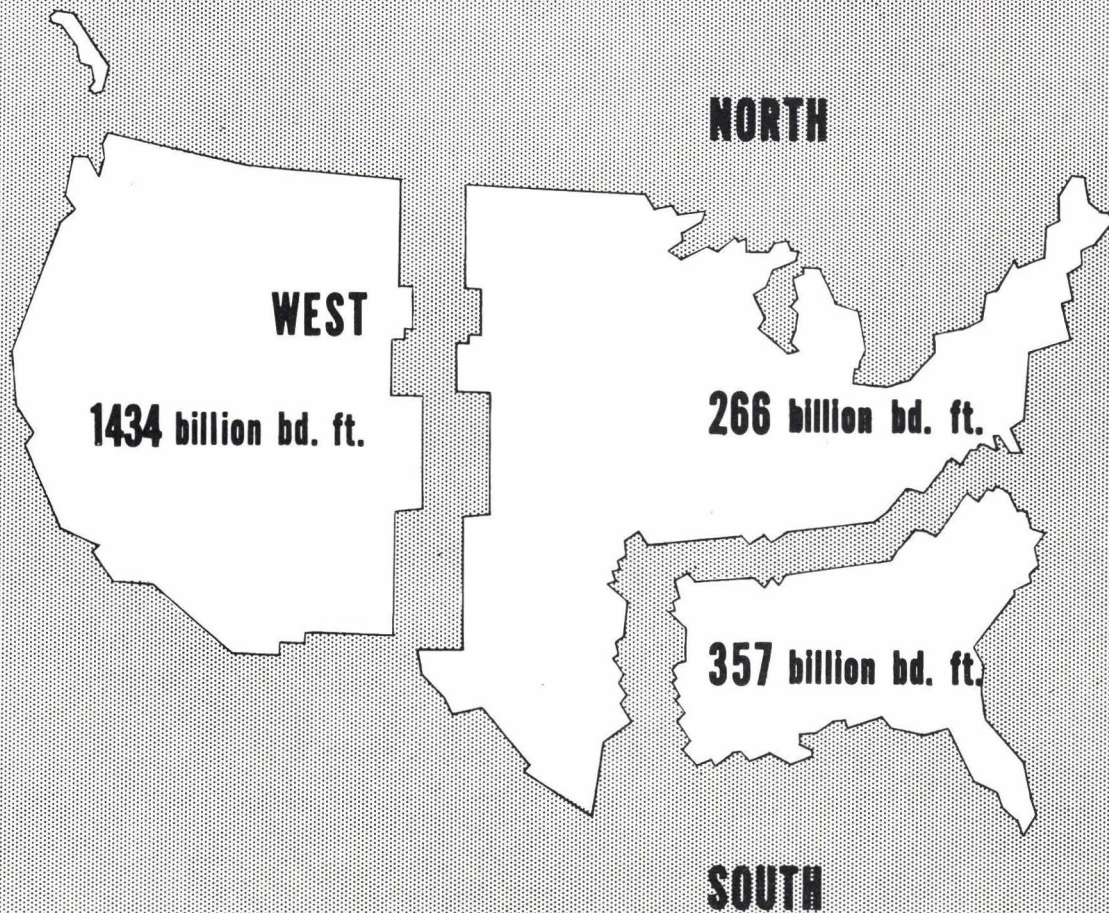


Chart TRR - 12. Sawtimber Volume

Do you recall Chart No. 7 which shows 75 percent of the commercial forest land as located in the East? Well, when we consider the amount of sawtimber we have, almost the reverse is true -- 70 percent of it is in the West -- 30 percent in the East.

The great bulk of sawtimber (trees big enough to make lumber, veneer, plywood, cooperage, and many other products) in the West is in the old-growth or virgin stands remaining there. To the extent that our commercial timber lands are put under good forest management, the standing volume of sawtimber in the West would be reduced somewhat and the volume in the East raised.

(See pages 42-46 and T.R.R. Fact Sheet No. 1)

Local Notes:

OWNERSHIP OF SAWTIMBER

FEDERAL 44%

STATE & LOCAL 4%

FARM 15%

FOREST INDUSTRIES
& OTHER PRIVATE 37%



Chart TRR - 13. Ownership of Sawtimber

The ownership of sawtimber is considerably different from the ownership of commercial forest land, as shown on previous charts.

The Federal Government owns 44 percent of the sawtimber, most of which is on the western national forests where so much old-growth timber remains.

Previous charts show that forest land in farm ownerships amounts to 34 percent of all commercial forest area, more than in any other type of ownership. But look at this chart, which shows the sawtimber in farm ownership as amounting to only 15 percent of the total. This fact is indicative of the poor condition of forest lands in farm ownership.

(See pages 48-49 and T.R.R. Fact Sheet No. 1)

Local Notes:

LOW QUALITY—A PROBLEM

EASTERN HARDWOODS

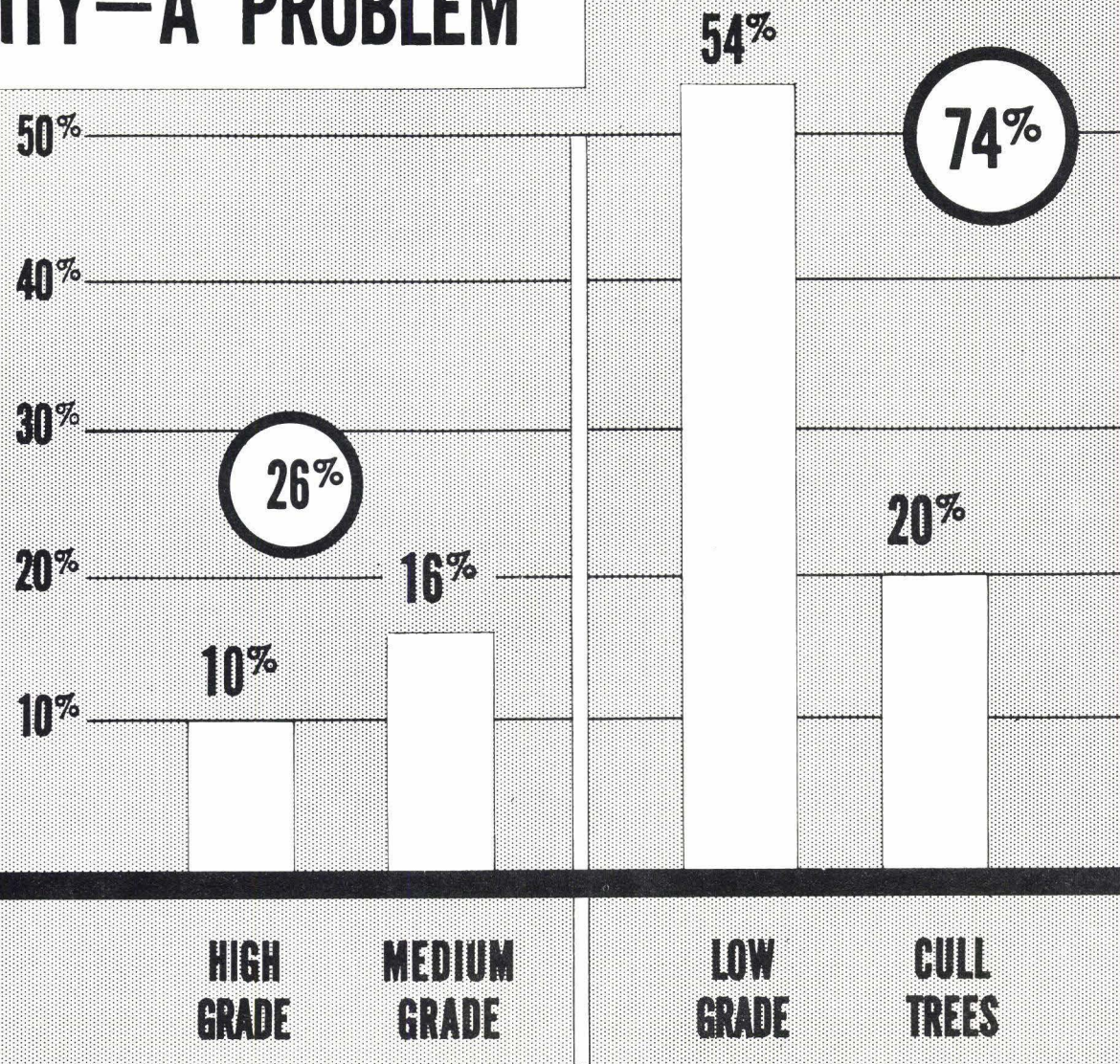


Chart TRR - 14. Low Quality - A Problem

Wood quality is falling off and may become a serious problem unless we grow a larger volume of high-quality trees. For eastern hardwoods, more than one-half of the total volume is now in low-grade logs. Ten percent is in high-grade logs, while about 16 percent is in medium-grade. Cull trees make up 20 percent.

Between 1936 and 1953, the percentage of standing timber volume that would make high-grade logs in the Lake States declined as follows:

Sugar maple,	from 26% to 18%
Beech,	" 19 " 5
Yellow birch,	" 36 " 15
Oak,	" 16 " 12
Basswood,	" 29 " 21

In Mississippi, the number of big pines and other softwoods fell off between 1935 and 1948. For every 100 pines and other softwoods 20 inches in diameter in 1935, there were only 58 in 1948, a drop of 42 percent. Similar changes were found in a few other States where measurements were made at about 20-year intervals.

Research has developed many ways for overcoming the defects that cause low quality in wood. But many products will require some high-quality wood and most people prefer articles of high-quality materials.

(See pages 50-52 and T.R.R. Fact Sheet No. 2)

Local Notes:

A COMPARISON OF SAWTIMBER

principal species

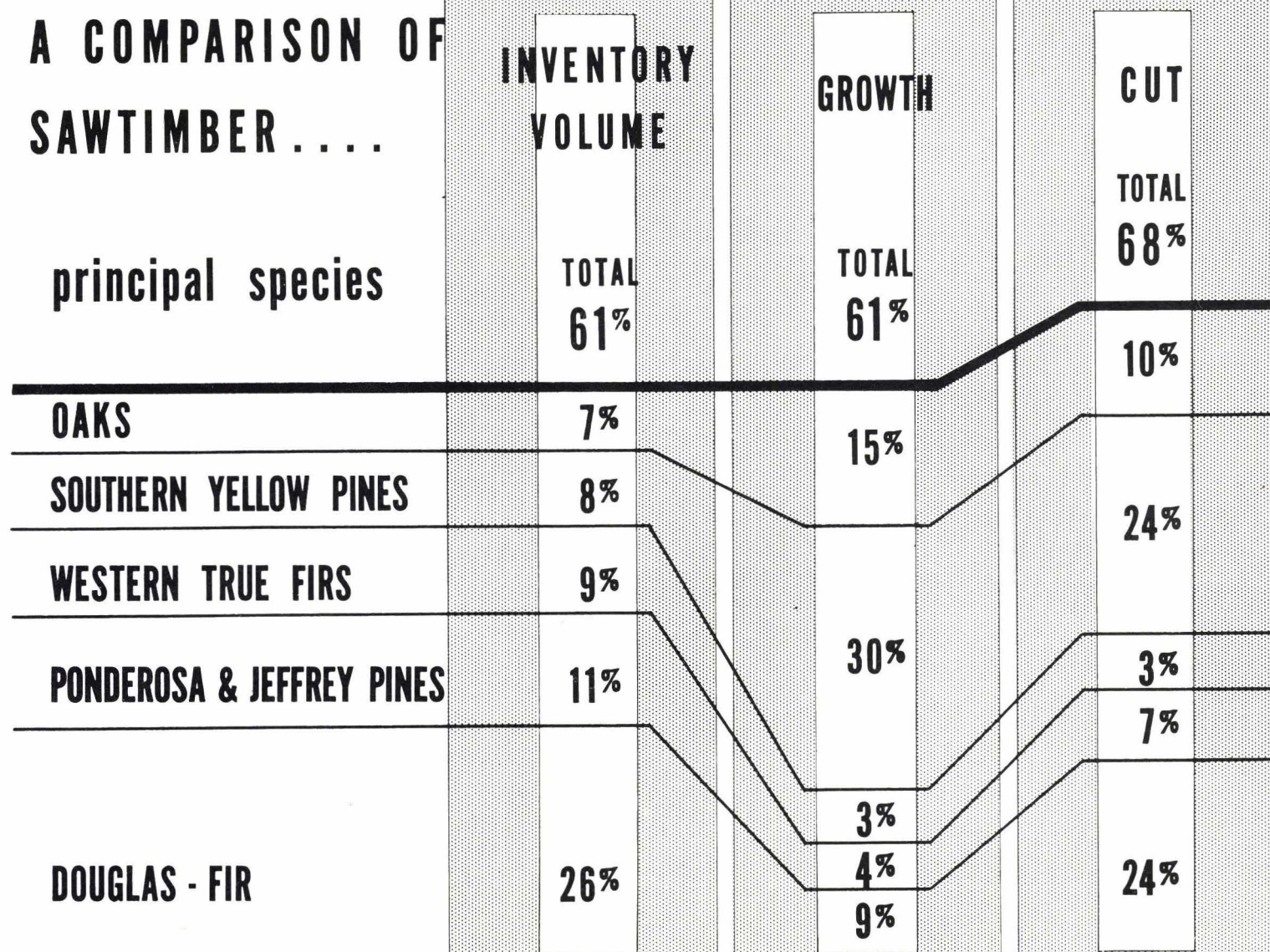


Chart TRR - 19. A Comparison of Sawtimber -- Inventory - Growth - Cut

More than two-thirds of the timber cut in 1952 came from five species groups. These same five groups of species accounted for 61 percent of the total net growth and also 61 percent of the inventory of standing timber. We are therefore heavily dependent on relatively few species. Any major threat to these species would result in considerable change in present patterns of use.

A number of interesting details can be observed from this chart. For example, the southern pines and Douglas fir together accounted for nearly half the total cut of sawtimber in 1952. They also accounted for 39 percent of the growth and only 34 percent of the inventory.

(See pages 64-66 and T.R.R. Fact Sheet No. 3)

Local Notes:

TIMBER CUT

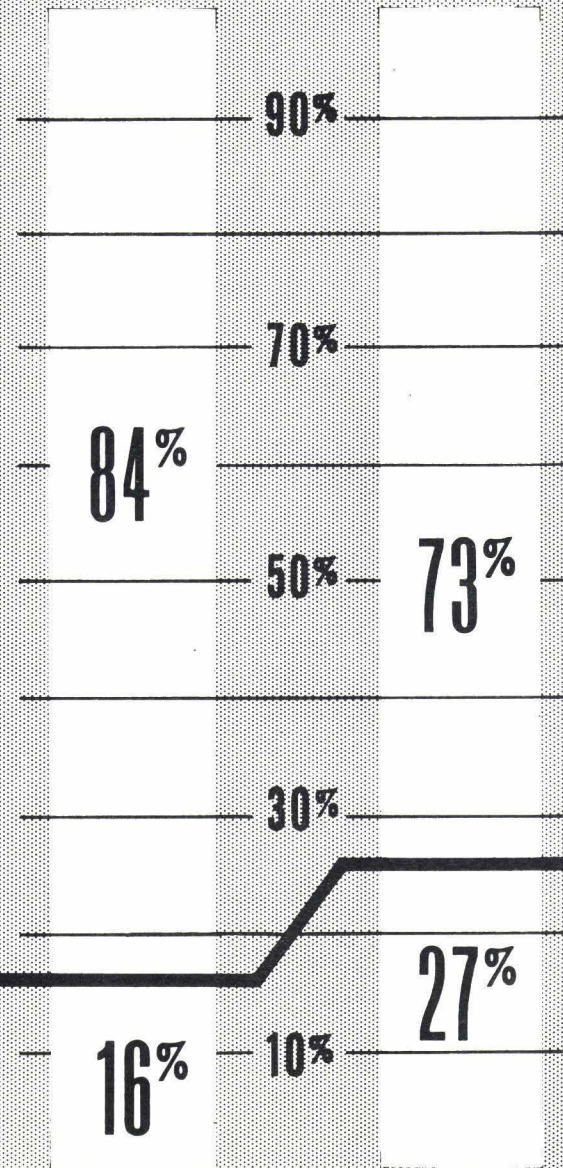
10.8 bil. cu. ft.

bil. cu. ft. 9.1

SAWTIMBER

POLETIMBER

bil. cu. ft. 1.7



INVENTORY VOLUME

517 bil. cu. ft.

379 bil. cu. ft.

138 bil. cu. ft.

Chart TRR - 16. Timber Cut - Inventory Volume. Sawtimber and
Poletimber

In this chart the significant point is that most of our annual timber cut comes from sawtimber. Only 16 percent, or 1.7 billion cubic feet, is cut from poletimber. In other words our major dependence is on trees of larger sizes.

Note here that almost three-quarters of our inventory timber volume is made up of sawtimber.

(See pages 60-69 and T.R.R. Fact Sheet No. 3)

Local Notes:

INPUT

INPUT			IMPORTS 1,147	TOTAL TIMBER INPUT 13,609 million cubic feet	PRIMARY PRODUCTS 8,831	FINAL PRODUCTS 10,863	INDUSTRIAL WOOD 7,103	LUMBER 3,469
EAST 6,993	HARDWOOD 3,247	HARDWOOD 3,270	FROM DEAD & CULL TREES 1,705					PULPWOOD 2,637
	SOFTWOOD 3,746	SOFTWOOD 7,487	TIMBER CUT FROM GROWING STOCK 10,757					OTHER 997
	WEST 3,764							SOFTWOOD 3,741
	HARDWOOD 23				PLANT RESIDUES 3,414	USED RESIDUES 2,032		
					LOGGING RESIDUES	UNUSED 1,382		
						1,364		OUTPUT

OUTPUT

Chart TRR - 17. Input - Output

Here is a flow chart which, when read from left to right, shows in millions of cubic feet the amount of timber we cut from live trees, the imports, and the timber cut from dead and cull trees. All of these added together show a total timber input of 13.6 billion cubic feet for the year 1952. Nearly 7 billion cubic feet was cut from living trees in the East and about 3.8 billion was cut from such timber in the West.

Column 8 shows that 7.1 billion cubic feet or 52 percent of the total input of timber results in production of industrial wood. An additional 3.76 billion cubic feet or 29 percent is used for fuel.

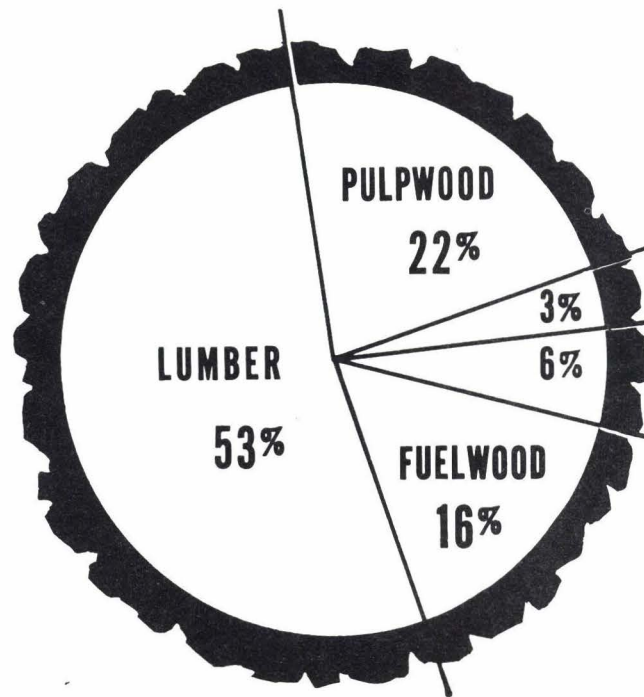
Take a close look at the lower segments of the last four columns. In Column 7 we find that unused residues from both the woods and the plants amount to 2.7 million cubic feet for 1952. This is about one-quarter of the total live timber cut in that year.

About half of our fuelwood comes from plant residues.

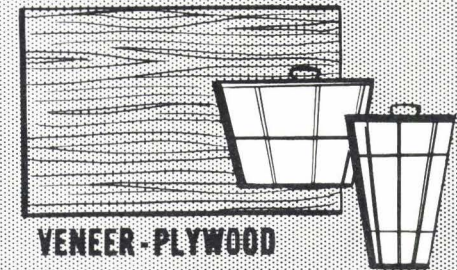
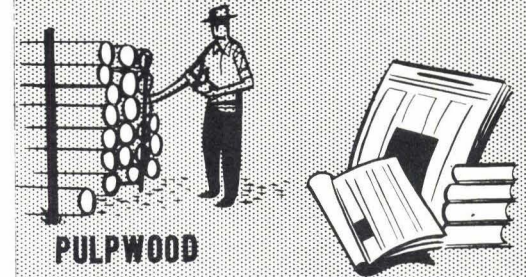
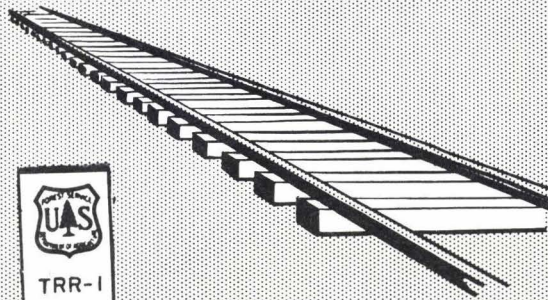
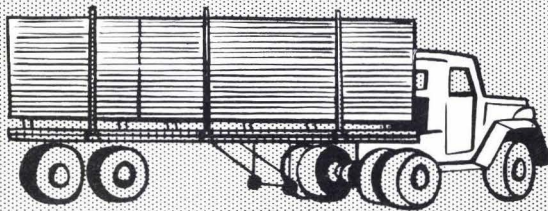
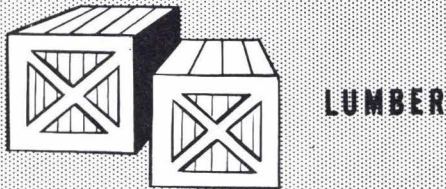
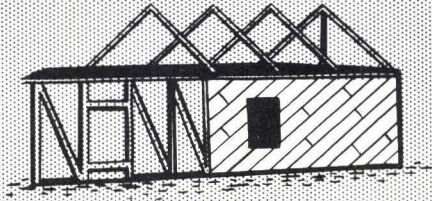
(See page 61 and T.R.R. Fact Sheets No. 8 and 9)

Local Notes:

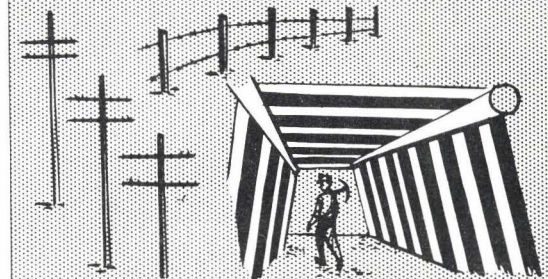
CONSUMPTION OF TIMBER PRODUCTS-1952



TOTAL - 12.2 billion cubic feet



OTHER PRODUCTS



FUELWOOD



Chart TRR - 1. Consumption of Timber Products - 1952Total - 12.2 Billion Cubic Feet

Here is illustrated the consumption of timber products in the United States in 1952. Lumber makes up more than one-half of the total, pulpwood 22 percent and fuelwood is third with 16 percent. The rapidly growing use of plywood and veneer raised consumption of these products to 3 percent by 1952. Miscellaneous other products accounted for 6 percent.

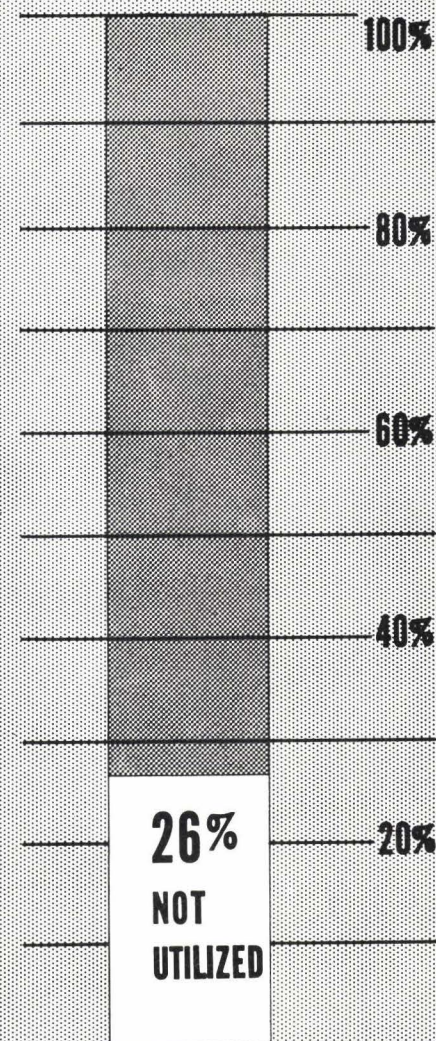
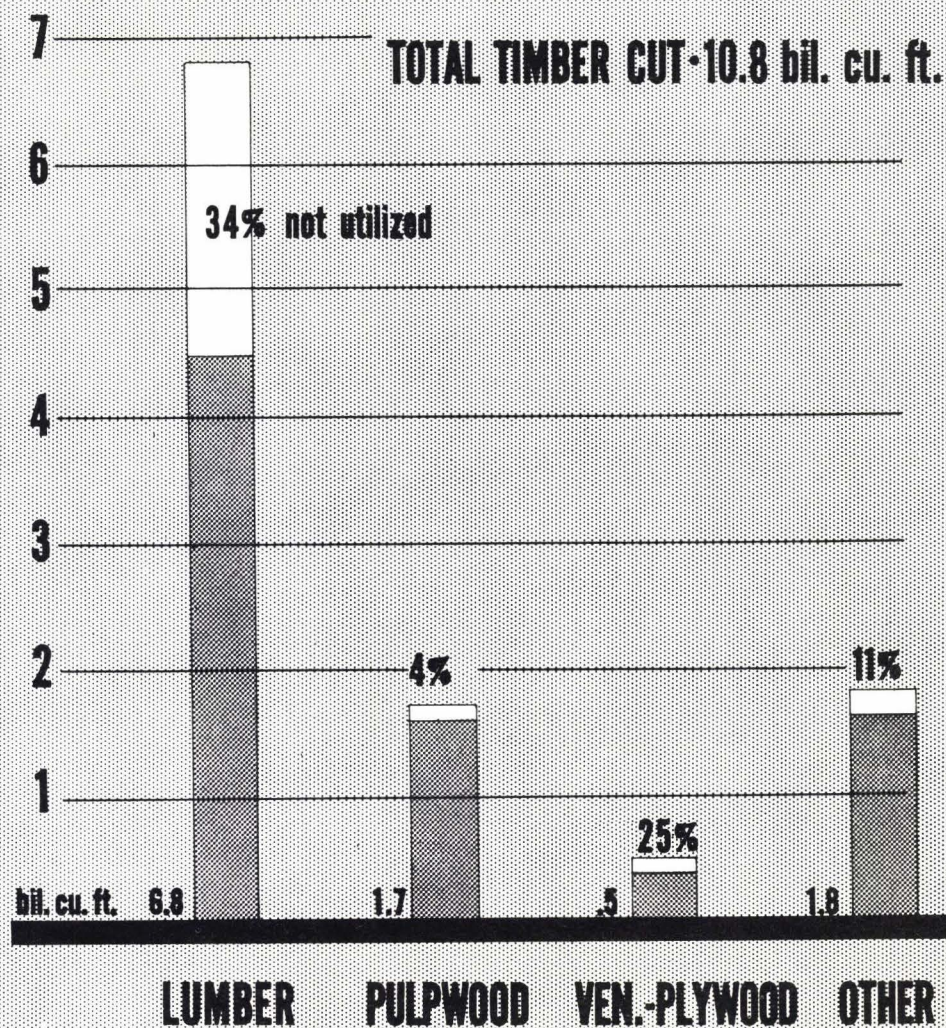
Consumption of pulpwood increased $4\frac{1}{2}$ times between 1920 and 1952 and during the same period consumption of veneer and plywood increased 6 times. The per capita consumption of these products also increased.

In contrast total consumption of lumber has not shown such a sharp rise and per capita consumption dropped from 325 board feet in 1920 to 264 board feet in 1952. Fuelwood consumption has dropped rapidly both as to total use and per capita consumption and in all probability will continue this trend.

(See pages 21-24 and note particularly the factors which influence timber products consumption. See T.R.R. Fact Sheet No. 9)

Local Notes:

1/4 OF TIMBER CUT IS NOT UTILIZED



ALL TIMBER CUT

Chart TRR - 20. One-fourth of Timber Cut is Not Utilized

We do not use all of the timber we cut. The amount not used for any purpose was one-quarter of the total amount cut from live timber in 1952. Most of the unused wood comes from the timber cut for lumber. Lumber operations are therefore the most promising source of residues as raw material for new products or expanded production of existing ones that can be made from residues. Total utilization is far better in the production of pulpwood. However, there is considerable waste in timber cut for veneer and plywood, but for that cut for other purposes the unused portion is not so great.

Reduction of unused residues is one of the greatest challenges facing us in our attempts to improve our timber situation. Use of more residues would make the timber we cut go farther and can be the source of new products.

(See pages 63-64 and T.R.R. Fact Sheet No. 8)

Local Notes:

SAWTIMBER GROWTH-1944 and 1952

in billions of board feet

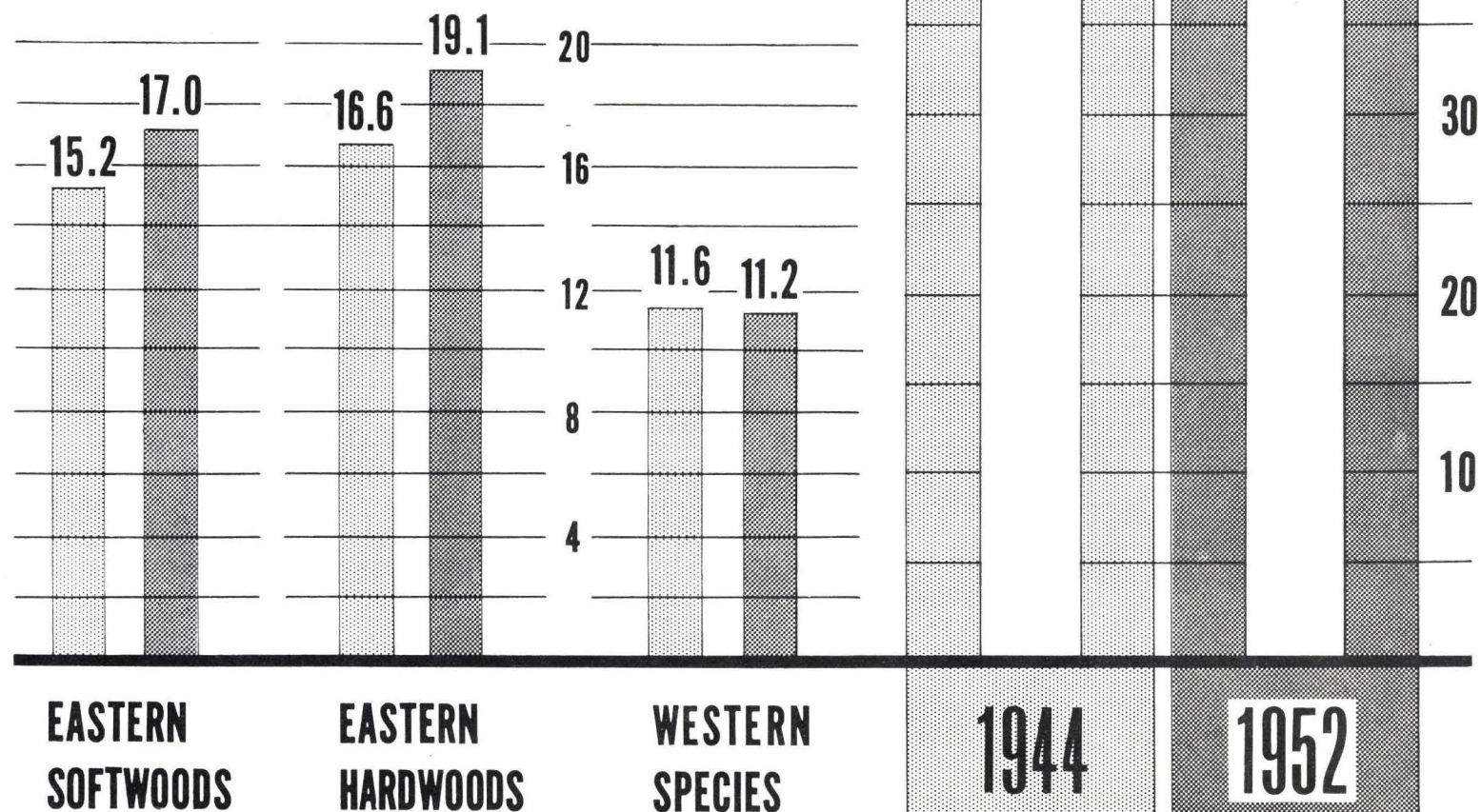


Chart TRR - 15. Sawtimber Growth - 1944 and 1952 in Billions
of Board Feet

One of the fortunate things about our timber situation is that in 1952 annual growth of sawtimber was 4 billion board feet greater than in 1944. Of course, this includes both softwoods and hardwoods, with the greatest increase occurring in the eastern hardwoods. However, eastern softwoods did show a substantial increase over 1944.

Western species, mostly softwoods, in 1952 showed a decrease of less than one-half billion board feet between 1944 and 1952. This is not a really significant factor in our timber situation, since most of the softwoods in the West are still in old-growth or virgin stands. Growth there will increase to the extent that old-growth stands are converted into young, healthy stands through careful harvesting of the mature timber.

(See pages 56-59)

Local Notes:

SAWTIMBER GROWTH & CUT, 1952

in billions of board feet

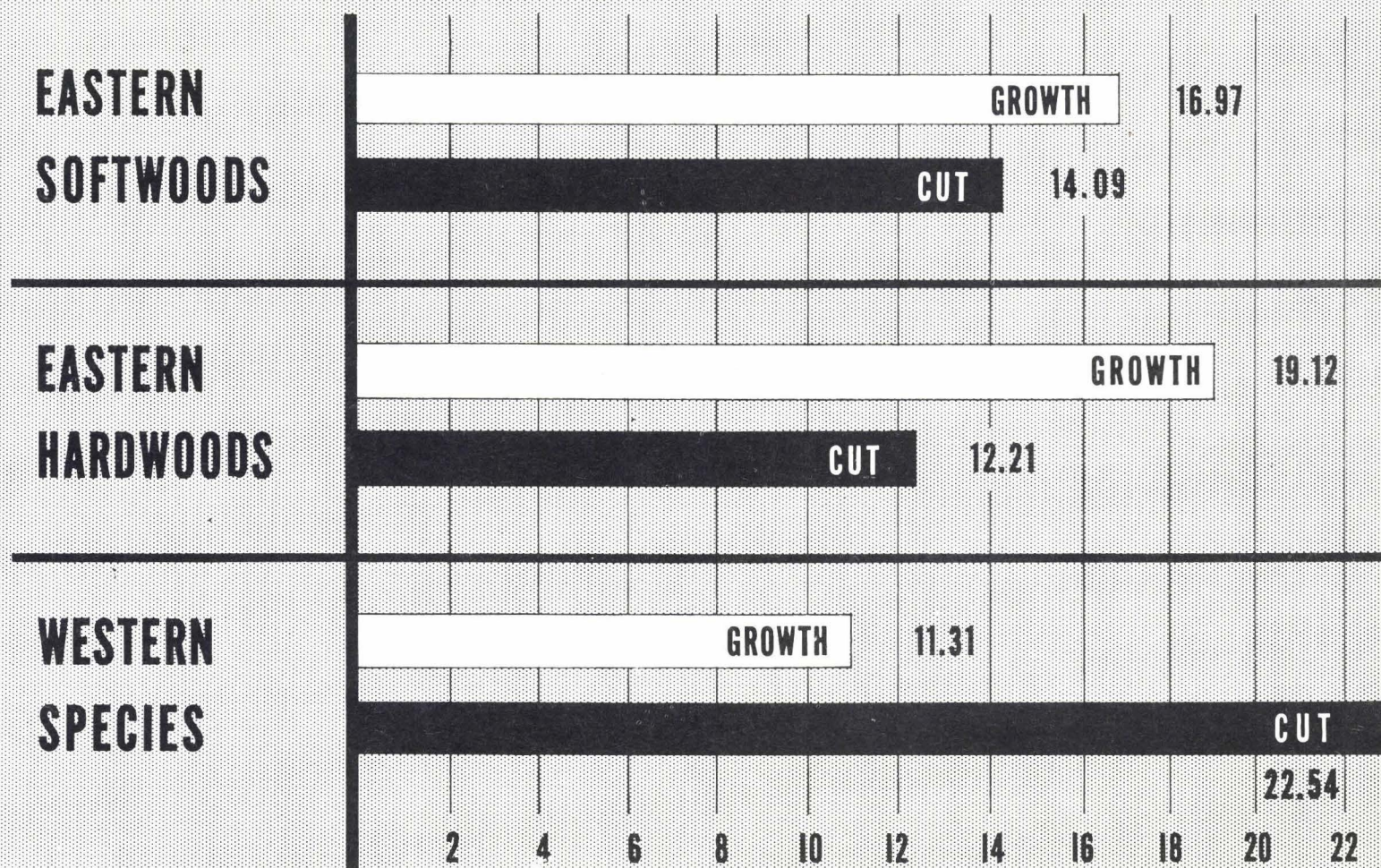


Chart TRR - 18. Sawtimber Growth and Cut, 1952 - in Billions of
Board Feet

Another encouraging fact about our timber situation is that for most eastern softwoods and eastern hardwoods sawtimber growth in 1952 exceeded cut. Of course, this same relationship does not apply to western species, which are mostly softwoods. There the cut in old-growth stands is approximately double the growth. This excess of cut over growth in western species is something which may continue for some years. Growth in the West will increase to the extent that harvest of old-growth timber is accompanied by establishment of thrifty, rapidly growing second-growth forests.

The favorable growth-cut balance in eastern softwoods is partly the result of a reduced cut which was made up by an increased cut of western old-growth timber.

(See pages 56-69)

Local Notes:

TIMBER LOSS TO DESTRUCTIVE AGENTS 43.8 BILLION BOARD FEET

17.6

3.6



5.0



2.2

GROWTH LOSS
31.1 billion bd. ft.

6.6



.8

MORTALITY
12.7 bil. bd. ft.

.5



3.4

2.8



1.3

16

14

12

10

8

6

4

2

2

4

6

Chart TRR - 21. Timber Loss to Destructive Agents43.8 Billion Board Feet

Destructive agents, such as insects, disease, fire, weather, and grazing animals kill one-quarter of the timber grown. That is bad enough but there is an even greater growth loss. Growth loss is simply a subsequent reduction in growth that results from destructive events that may have hit a timber stand in any one year. For example, a fire occurred in 1952. It may have killed only the very small trees -- too small to be measured in the inventory or growth figures. However, the effect of that fire on growth in the area burned during subsequent years will be considerable. Disease, insect damage, and other damaging agents have similar effects. Adding mortality and growth loss together, we come up with "growth impact," a staggering total of nearly 44 billion board feet which will eventually be lost due to the destructive incidents of 1952.

This chart shows that fire killed the least amount of timber in 1952. However, by looking to the left of the black perpendicular line, the growth loss from fires is second only to that of disease.

We have made great strides in prevention and control of forest fires. When we make the same accomplishments in the control of other destructive agencies, we will have made great progress toward permanent improvement of our timber situation.

(See pages 70-80 and T.R.R. Fact Sheet No. 10)

Local Notes:

MORTALITY $\frac{1}{4}$ OF SAWTIMBER GROWTH

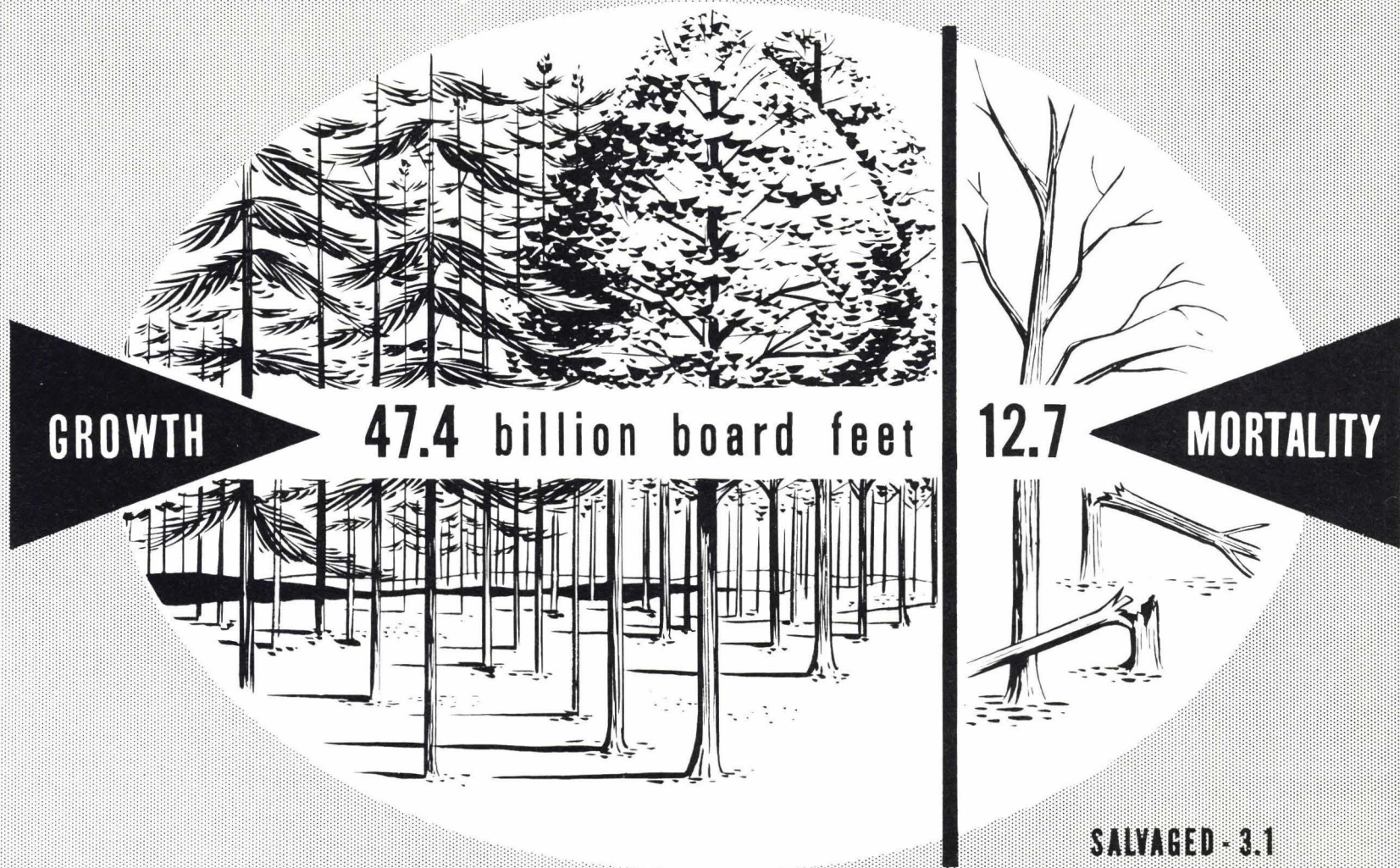


Chart TRR - 22. Mortality One-Fourth of Sawtimber Growth

Just another graphic illustration of the fact that a volume equivalent to one-quarter of our net annual sawtimber growth is lost due to the killing or dying of trees. Mortality can be reduced by expanded protection facilities and more intensive forest practices to harvest weakened and threatened trees while still usable.

Salvage of dead timber is often possible. In 1952 over 3 billion board feet or nearly one-fourth of the annual mortality was salvaged.

(See pages 70-80 and T.R.R. Fact Sheet No. 10)

Local Notes:

1/4 OF COMMERCIAL FOREST LAND POORLY STOCKED

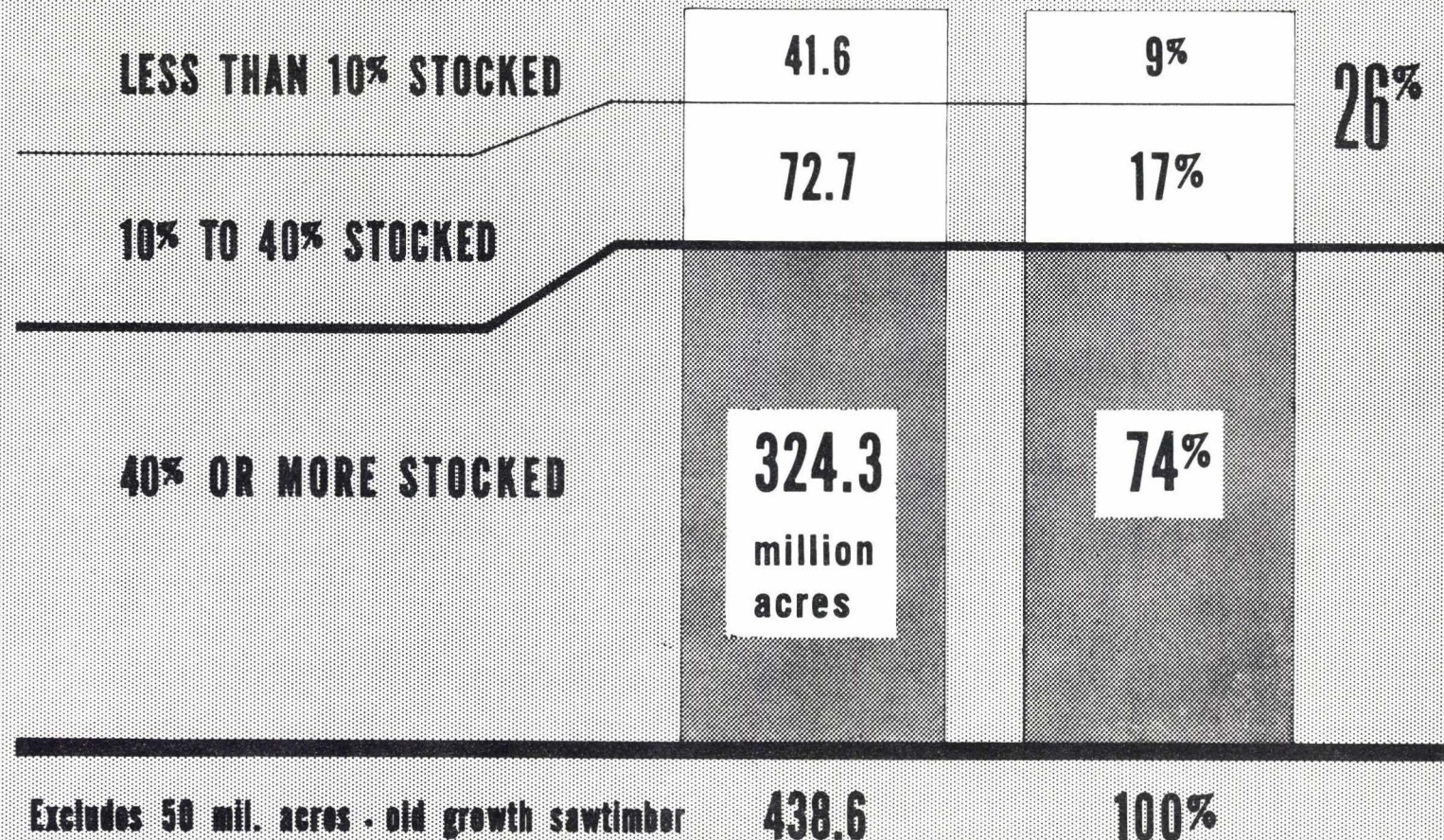


Chart TRR - 23. One-fourth of Commercial Forest Land Poorly Stocked

Another unfavorable aspect of our timber situation is the fact that one-quarter of our commercial land is poorly stocked. One hundred fourteen million acres, or 26 percent of the forest land (excluding the 50 million acres of old-growth sawtimber) are less than 40 percent stocked with trees. Three-fourths of our commercial area is from 40 percent to 100 percent stocked. So a part of this large area is also only partially stocked. Thus a very substantial portion of our wood growing factory is on a slow production schedule.

(See page 41 and T.R.R. Fact Sheet No. 11)

Local Notes:

STATUS OF PLANTING

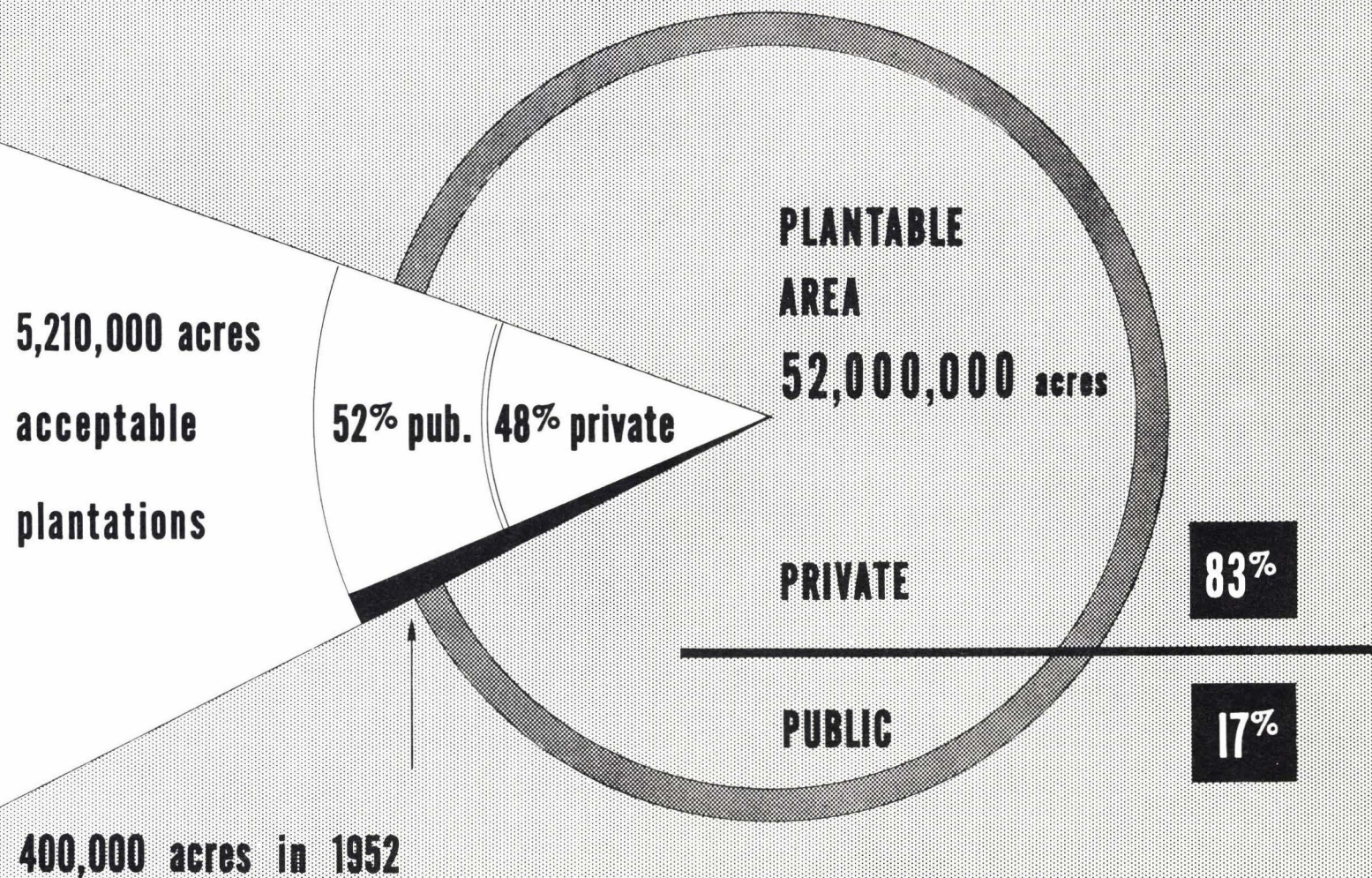


Chart TRR - 24. Status of Planting

Fifty-two million acres! That's the size of our tree planting job if 11 percent of our commercial forest land is to produce timber crops again within a reasonable time.

Over 80 percent of the land needing planting is privately owned and the biggest part of the job is in the East.

Today we have over 5 million acres of acceptable plantations in the United States, divided about equally between public and private commercial forest land. In 1952 the establishment of acceptable plantations amounted to 400,000 acres. Planting activity has increased rapidly and in 1955 we planted about 800,000 acres. Probably 75 to 80 percent of this area will turn out to be acceptable.

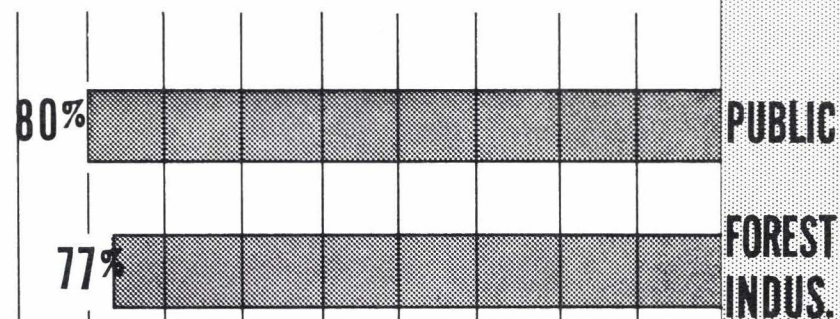
The 52 million acres of unproductive forest land is a big job and a big opportunity if it is ever to produce the timber it can very well grow. If all this land were planted to trees, it would eventually add about 8 million board feet of timber to our annual cut.

(See pages 80-84 and T.R.R. Fact Sheet No. 11)

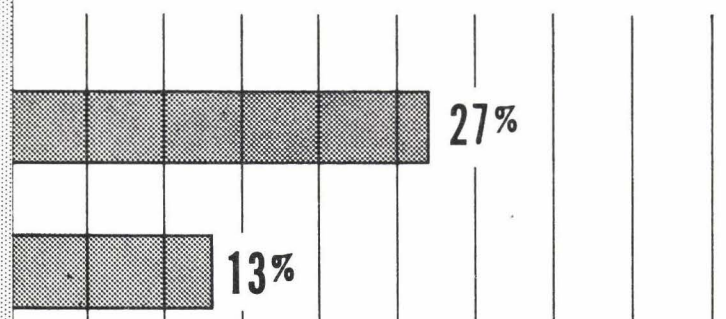
Local Notes:

PRODUCTIVITY OF RECENTLY CUT LANDS

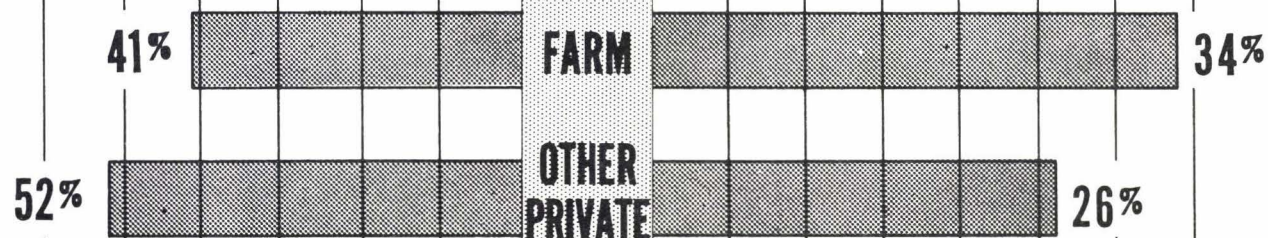
proportion in upper productivity class



commercial area owned



90 80 70 60 50 40 30 20 10 PERCENT 5 10 15 20 25 30 35 40 45



TRR-25

Chart TRR - 25. Productivity of Recently Cut Lands

Surveys of recently cut lands in public ownership and in forest industry ownership showed that about 80 percent of such lands were highly productive when appraised by standards currently attainable under prevailing operating conditions. However, these two types of ownership combined account for only 40 percent of our commercial forest lands.

When we consider farm and other private ownerships, the productivity of recently cut lands is much lower. In fact, on the forest lands in farm ownership, 41 percent were found to be in the upper productivity class. On the other private, nonfarm and ~~nonindustrial~~ ownerships 52 percent of recently cutover land fell in the upper productivity class. These last two ownership classes -- farm and other private -- comprise 60 percent of all commercial forest land.

This chart points out one of our greatest forestry needs in the United States -- to get better forestry practices on the forest lands in small ownerships. They account for most of the forest land and, therefore, present the greatest opportunity for better forestry.

(See pages 87-91 and T.R.R. Fact Sheet No. 7)

Local Notes:

SAWTIMBER GROWTH NEEDED & PROJECTED in billions of board feet

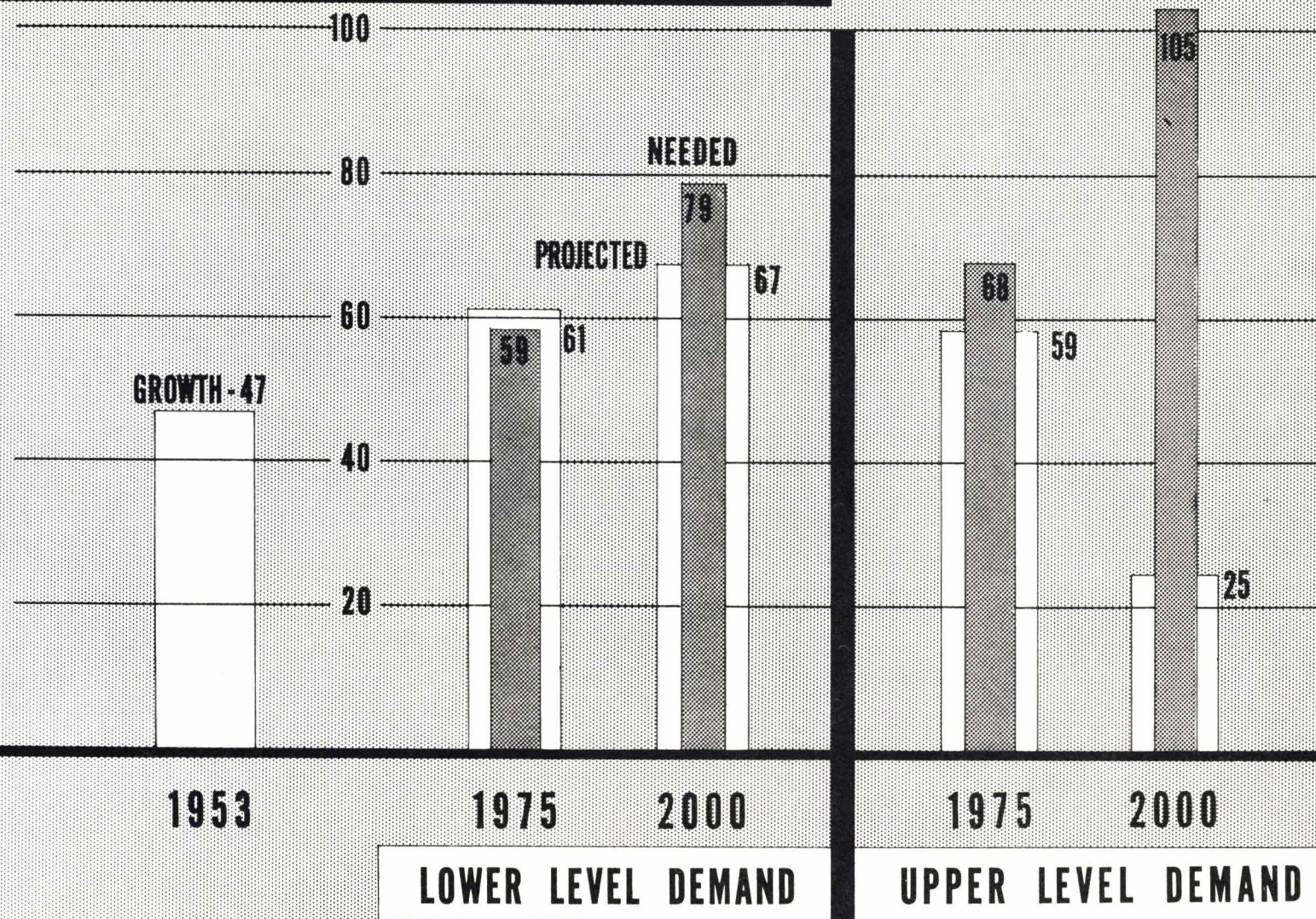


Chart TRR - 26, Sawtimber Growth Needed and Projected - in
Billions of Board Feet

Comparison of estimated future growth with timber needs indicates how easy or difficult it may be to meet future demands on a sustained basis.

This chart shows that estimates of needed growth in 2000 range from 79 to 105 billion board feet of sawtimber, or from 67 to 122 percent above 1952 levels. These are totals for all species together. The lower estimate is based on a lower level demand which reflects a relative decrease in the use of wood, continued decline in per capita consumption, and an increase in the real price of timber products. The upper estimate assumes that wood will continue to occupy about the same role as at present in the national economy, with relative stabilization of real price and an increase in per capita consumption.

If we look at some of the details which are only summarized in the chart and examine needed growth of the important species groups we find that by 2000, eastern softwood sawtimber growth would need to increase 90 to 154 percent over 1952, eastern hardwoods 15 to 52 percent, and western species 121 to 194 percent, depending on whether needs are geared to lower or upper level estimates of demand.

The payoff in appraisal of our timber situation is a comparison of this needed growth with the growth we expect to have. The growth we can expect has been projected on the basis of two major considerations. First, that estimated demands for timber will be cut each year. Second, that efforts to grow timber will continue to progress at the accelerated rate indicated by trends of recent years.

Projected sawtimber growth in 2000 ranges from 67 to 25 billion board feet, or from 16 to 76 percent below needed growth for the lower and upper levels of demand, respectively. By 2000 eastern softwood sawtimber growth would range from 29 percent below needed growth down to negligible amounts, eastern hardwoods from 16 percent above to 58 percent below, and western species from 28 to 61 percent below depending on whether timber cut had been geared to lower or upper level demands in the meantime. If upper level estimates of demand are met until the end of the century the Nation would be facing serious wood supply problems before that time, especially in softwood sawtimber. Even hardwood sawtimber would be decreasing. If the lower level estimates prevail, softwood growth by the end of the century would be considerably below that needed to sustain demand.

(Over)

Forestry is not a short-time proposition. Where this Nation stands in timber supply at the end of the century depends largely on actions taken during the next two decades. Greater acceleration of recent encouraging forestry trends is vital if the timber resources of the Nation are to be reasonably abundant 50 years hence. Because of the magnitude of potential demand, and the difficulty of extending more intensive forestry to the millions of small holdings, time is important. The potential of the land is adequate. Our challenge is to make better use of it soon.

(See pages 108-122 and T.R.R. Fact Sheet No. 4)

Local Notes: